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BERLIN TRANSPORTATION PROBLEMS

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It is self-evident that the present division of Berlin into sectors cannot be considered the basis of transportation planning for the future: the city with its functions must be viewed as an entity. In general, the prewar conditions of about 1938 -- except in regard to the destroyed areas and new ideas of city planning -- may be considered as a guide. This will be especially true for statistical bases, e.g., transportation figures, transshipping of freight, characteristics of transportation media, etc. Traffic and transport problems are beginning to appear with the clearing away of the rubble in the course of the National Reconstruction Program of 1952.

From the viewpoint of the building trade, the question arises as to whether it would be better to convert the ruins on the spot into gravel, which, formed into bricks, could be used for new construction, or whether the debris should be transported out of the city and dumped. No large-scale dumping of debris in the area of Greater Berlin would be feasible for reasons of city planning and because it would result in excessive calcium deposits in the drinking water. Therefore, existing means of transportation should be used to haul away the debris in the cheapest and best way. In this connection, the utilization of available railroad and streetcar tracks or roads should be considered for future planning.

The entire traffic problem can be studied best if subdivided into the various means of transportation.

Since installations for water transport are the most costly, water transportation must receive first consideration. Railroad traffic is decisive for the entire transportation aspect of the city. Since revolutionary changes will occur owing to the new concept of city planning, for reasons of economy, and because of improvements in rolling stock, railroad problems must be given priority over those of public short-distance traffic and those of road planning.

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WATER TRANSPORTATION

Waterway Network

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The problem of making the Berlin water routes navigable for 1,000-ton ships is important in the future development of water transportation.

Construction of the Mittelland Canal opened the way for 1,000-ton ships from the Ruhr area to Berlin. An influx of 1,000-ton ships via the Oder River is to be expected from Poland, since Poland has included 1,000-ton ships in its Six-Year Plan.

As long as construction of the Rhine-Main-Danube Canal and of the Oder-Danube Canal has not been carried out, the water routes leading through Berlin are the only important connection of the East and West European waterway networks. Their expansion is, therefore, a transportation necessity.

With the completion of the Mittelland Canal, the route for 1,000-ton ships was clear as far as Berlin. According to the state of the waterways in 1937, the route led over the Sakrow-Paretz waterway, the lower Havel River, and the Spree River to the Charlottenburg lock. Up to 1945, further preparatory work was undertaken to make the waterways of inner Berlin navigable for 1,000-ton ships; the reconstruction of the Mühlendamm lock and the new construction of a third chamber at the Machnow lock. The cutoff at Charlottenburg and the straightening of the Spree River at its confluence with the Havel River were completed for the most part.

Construction of the Paretz-Niederneuendorf Canal, which should improve the traffi: connection between the Oder and Elbe rivers, began in 1951. Further measures aim at the completion of the cutoff at Charlottenburg between the Charlottenburg lock and the west harbor in connection with the reconstruction of the Charlottenburg lock. In addition, it is intended to make the Teltow Canal navigable for 1,000-ton ships.

An extension of these measures would have important advantages: making the waterways through the city between the west harbor and the east harbor navigable to 1,000-ton ships would save a great deal of detouring.

The route from the Oder-Spree Canal to the west harbor via the Teltow Canal would constitute a detour of 53 kilometers, in contrast to a direct route through the city.

The trip on the water from Szczecin via the upper Havel River, the Paretz-Niederneuendorf Canal, the Havel River, and the Teltow Canal to the east harbor would be a detour of 65 kilometers if the water route between the east and west harbors were not made navigable for 1,000-ton traffic. The connection between Szczecin and the east harbor via the Oder-Spree Canal would cause an even longer detour

To eliminate these long detours, which cost time and money, it is urgent that the Spree River be developed for 1,000-ton traffic between the east and west harbors. Connected with this is the enlarging of the Spandau navigation canal between the Humboldt Harbor and the upper Havel River.

Development for 1,000-ton traffic involves mainly enlarging the radii of curvature, the smallest of which -- downstream from the Weidendamm bridge -- now measures 60 meters. An extension of these radii to at least 700 meters is indispensable. This requires a minor straightening of the inner curve at the National Gallery and a straightening of the waterway between the Weidendamm bridge and

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Humboldt Harbor. There are several possibilities. A solution must be attempted by which, after a straightening of the Stadtbahn (line through the center of the city) at the Lehrte Terminal in Berlin, two bridges would be saved by straightening the Spree River north of the Stadtbahn.

The extensive destruction of structures as well as quays presents a unique opportunity for straightening and for achieving a favorable building plan.

Harbor Installations

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In addition to achieving navigability for 1,000-ton ships, the problem of a new harbor is a decisive one in the traffic planning for Berlin. From the viewpoint of provisioning the population, a central harbor for all of Berlin would not be advisable. Most of Berlin's freight transshipping formerly took place at the west harbor. However, to accomplish the orderly provisioning of the city, there should be a decentralization of food supply to three or four different points. Each of the following three provisioning centers would have to take care of about 1.5 million people: (a) area of large market halls at Beusselstrasse, (b) terrain in the Tempelhof area, and (c) a new provisioning center at Rummelsburg Lake.

To clear up traffic conditions in the vicinity of the Alexanderplatz, a transfer of the large market halls from the Alexanderplatz to another provisioning center is most essential. Also, the banks of the Spree River are largely to be made accessible to the public, through the creation of recreational areas; this will entail the removal of loading piers and their construction in a new harbor area.

The area at Rummelsburg Lake is particularly suited for the concentration of these installations for the following reasons:

- l. Economic. Because of its design, the present east harbor has less than half the capacity of the west harbor. With the strengthening of economic relations with the People's Democracies, particularly Poland, and with the construction of the East Metallurgical Combine, as well as the expansion of the Oder River water routes, an increase of traffic from the East may be expected.
- City planning. The liquidation of the large market halls at the Alexanderplatz during the process of cleaning up city-planning conditions will be possible only after the completion of a new provisioning center (Rummelsburg harbor).
- 3. Water transportation. The location of the harbor in the east of the city, close by the Spree River, is particularly advantageous, because harbor operations do not impede traffic on the through waterway. The location of the present east harbor, which cannot be enlarged because of its development along a quay wall, must be regarded as very disadvantageous from the viewpoint of city planning, because it lies cramped between residential sections and a waterway, and because rail connections are very inadequate.
- 4. Water economy. The flushing of Rummelsburg Lake with the aid of the new cutoff through the Stralau peninsula will be a valuable service because it will improve the quality of the water in the lake, which becomes polluted through three emergency outlets of the city sewer system from the Lichtenberg area.
- 5. Transportation. The location of the harbor has the advantage that extensive rail connections as well as good road connections can be established. In any event, reconstruction to improve traffic conditions generally is being planned in this locale. The harbor area will be connected with the through road to Muehlenstrasse-Markgrafendamm-Hauptstrasse-Rummelsburg Highway, which is to be expanded.



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Because of existing buildings and the extraordinary difficulty of constructing bridges and underpasses in the Rummelsburg Lake area, no final plans have yet been developed.

LONG-DISTANCE RAILROAD TRAFFIC

Private railroads connecting individual localities were the first step in the historical development of the railroad. This led to the construction of stub stations, which were established in the following order:

1838 -- Potsdam Terminal (Potsdamer Bahnhof)

1841 -- Anhalt Terminal (Anhalter Bahphof)

1842 -- old East Terminal and North Terminal (Alter Ostbahnhof /Flaza/und Nordbahnhof)

1846 -- Hamburg Terminal (at the Lehrte Terminal) Hamburger Bahnhof (am Lehrter Bahnhof)

1867 -- Goerlitz Terminal (Goerlitzer Bahnhof)

1871 -- Lehrte Terminal (Lehrter Bahnhof)

The next step was the construction of the Ringbahn belt line from 1871 to 1877, and finally the construction of the Stadtbahn, which was completed in 1882.

Passenger Traffic

Although the location of stub stations in the heart of the city is advantageous for travelers, the following overriding disadvantages exist from the standpoint of operations and city engineering: (a) the backing in or out of trains; (b) the great need of space within the city for switching yards and freight yards connected with the stub stations.

To eliminate these disadvantages, the five stub stations must be replaced by other systems. Various suggestions have been made for this.

The Speer suggestion before 1945 was based on a widening of the Ringbahn for use by the long-distance system. Two through stations for long-distance trains were to be provided on the Ringbahn: The North Terminal at Wedding station, and the South Terminal at Papestrasse station -- to be connected by an underground express line. Trains on the radial lines toward Berlin would end at the nearest through station. The switching yards would be outside the Ringbahn so that the space within the Ringbahn would be completely free of railroad yards.

Another suggestion, after the end of the war in 1945, was the "Zehlendorf Plan," which would have channeled all the long-distance tracks onto a wide band parallel to the Stadtbahn and would have established several through stations where all trains would stop. This suggestion was abandoned because of the considerable widening of the present Stadtbahn and the unfavorable effects on city planning that would have been involved.

Finally the best solution was found: intersecting axes.

The advantage of this system is that it would result in a disentanglement of long-distance traffic by distributing it in two directions. The junction station for traffic from both directions would be situated in the center of the

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city, and switchyards could be arranged outside the ring system using the present yards of the east-west transverse. There would no longer be any need to back trains in or out. Traffic would operate so that, for example, trains arriving in Berlin from the south would travel through the city on the north-south line and terminate at North Station. The distance to the switching yard outside the ring is very short: this would reduce empty runs and save valuable space in the inner city. The system would operate in reverse for trains leaving Berlin. The same conditions would obtain for east-west traffic.

Construction of the north-south line through the city will cause difficulties, since the tracks must be laid mostly underground for reasons of city planning. There are two possibilities: one is to use the Friedrichstrasse station as a junction station; the other would make use of the connection of the Potsdam or Anhalt line with the Lehrte railroad line by running the line along the former Siegesallee and creating a junction station at the "Platz der Republik." In determining the best route, matters of city planding, transportation - economic considerations, and the total construction cost for the new traffic system will be important considerations. In addition, the interests of local traffic will be of decisive influence in the choice of the junction station. No decision seems to have been made yet on any specific route, since the variety of problems connected with such a project must be checked most carefully.

Freight Traffic

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Freight traffic is handled differently because there is no need to take freight traffic through the city. On the contrary, Berlin should be kept free of freight traffic. It would seem, therefore, that the most advantageous solution would be to reroute freight traffic on a belt line outside the city proper. Freight trains will be routed from the radial tracks to an outer belt; they will be broken up in a few spacious, efficient classification yards; and local freight trains will bring them into the freight stations. Thus, switching costs can be cut considerably. The present freight stations on the Ringbahn will be enlarged because of the abolition of freight stations at the present stub stations inside the Ringbahn. Therefore, it would be advisable to build a street belt alongside the Ringbahn to take care of the distribution of freight into the city. Freight stations on the radial tracks outside the Ringbahn would remain, but they would be less burdened because of the elimination of the present smaller classification yards.

Postal traffic must also be considered in railroad planning. The mail cars which are loaded at special post offices must be added to passenger trains. In the system of intersecting axes, the best place to add mail cars would be the station of departure since that is where the most time would be available for switching.

STREET TRAFFIC

Basic Aspects

The most important task of street planning is the allocation of space for thoroughfares as early as feasible. This task is greatly facilitated by the great destruction of the buildings above ground. Planning must be undertaken on a generous scale because of the great increase in automobile traffic anticipated for the next decades, and construction will proceed in individual phases. Street planning must consider the aspects of underground construction, transportation-technical and economic problems, and consideration of city planning. Planning is made difficult by the lack of traffic statistics. The old figures cannot generally be used for a new street plan, and accurate estimates of future traffic are impossible to make because too many uncertain elements are involved.

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The Street System

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Speer's previous suggestion -- intersecting street axes which were to cross west of the Brandenburger Tor -- was abandoned because of the recent trend in principles of city planning toward keeping the center of the city free of through traffic. The future street system will consist of two north-south and two eastwest thoroughfares which intersect and are tangential to the center of the city. These thoroughfares will be continued by highways leading into Autobahnen and other major highways. Berlin's long-distance traffic is handled on road belts. The outermost circle is the Autobahn belt which, at the time of its construction, had been planned on the basis of a considerable expansion of the Berlin city limits and an approximate doubling of the population. Present estimates limit the population of Berlin to 4 million. Therefore, such an expansion is out of the question. The significance of the Autobahn feeder highway as a distributor is sustained by the outer belt (formerly called the fourth belt), which the above highways should approach as level as possible. The next inner belt is the socalled supply belt (the third belt), which runs parallel to the Ringbahn. The second belt uses existing wide streets such as the Dimitroffstrasse. Finally, the parts of the thoroughfares encircling the center of the city form the inner belt. The intersections of thoroughfares with the belts are to be constructed so that a large number of turns will not interfere unduly with through traffic. In general, traffic circles will be the best solution to this problem.

City planning is being furthered by the City Planning Commission, which consists of four members each of the national and of the municipal government (in accordance with Article 2 of the Reconstruction Bill of 18 December 1950). For its support, the Transportation Commission, consisting of representatives of all departments dealing with transportation, was created a year ago. In addition, the Planning Commission for Berlin Traffic was formed on a smaller scale of representatives of traffic departments, in order to work on specifically designated traffic questions. A transportation group has recently been founded at the Chamber of Technology; this group also deals with traffic problems, circulates them in professional circles, and establishes connections with traffic experts.

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